



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

ACT/045/017
#5

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

December 17, 1986

CERTIFIED RETURN RECEIPT REQUESTED
(P 402 459 420)

Mr. Glen M. Eurick
Environmental and Occupational
Health Coordinator
Barrick Mercur Gold Mines, Inc.
P.O. Box 838
Tooele, Utah 84074

Dear Mr. Eurick:

Re: Final Approval of MRP Revision, Mercur Canyon Project, Marion Hill, Golden Gate and Sacramento Pits, Barrick Mercur Gold Mines, Inc., ACT/045/017, Folder #5, Tooele County, Utah

The Division has completed the review of the reclamation surety forms provided by Barrick Mercur Gold Mines, Inc. on December 1, 1986. This was the only item which remained prior to our issuance of final approval for the permit revision referenced above. One condition will be integrated into this final approval as follows:

STIPULATION TO FINAL PERMIT APPROVAL:

Barrick Mercur Gold Mines, Inc. must agree in writing to provide the Division with the following financial information:

1. Barrick will provide a copy of the formal audited corporate financial statements for the calendar year ending December 31, 1986 within 120 days of January 1, 1987.

The Division will review the above information and any other related legal and financial materials requested, which may be determined pertinent to meeting self bonding qualifications.

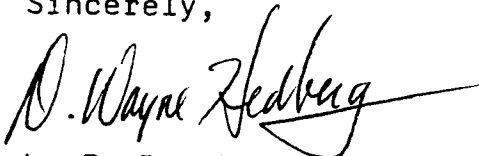
The existing reclamation surety entitled, Self Bonding and Indemnity Agreement Permit No. ACT/045/013 in the amount of \$4,197,153 (1994 dollars), is hereby replaced by the updated Self Bonding and Indemnity Agreement Permit No. ACT/045/017 in the amount of \$6,657,000 (1999 dollars) as received December 1, 1986.

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Mr. Glen Eurick
ACT/045/017
December 17, 1986

We sincerely appreciate Barrick's cooperation and patience in completing this permitting activity. Should questions or concerns remain, please contact me, D. Wayne Hedberg or Randy Harden of the permitting staff.

Sincerely,

for 
L. P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

DWH:djh
Enclosure(s)
cc: K. May
R. Harden
W. Hedberg
S. Linner
8946R/49

BARRICK MERCUR GOLD MINES, INC.
MERCUR CANYON PROJECT EXPANSION
MARION HILL, GOLDEN GATE AND SACRAMENTO PITS
EXECUTIVE SUMMARY - REVISION TO EXISTING PERMIT
December 4, 1986

Mine Name: <u>Mercur Canyon Mine</u> <u>Project Expansion, Marion Hill, Golden</u> <u>Gate & Sacramento Pits</u>	I. D. No.: <u>ACT/045/015</u>
Operator: <u>Barrick Mercur Gold Mines, Inc</u> <u>P.O. Box 838</u> <u>Tooele, Utah 84074</u>	County: _____
Telephone: <u>801-268-4447</u>	New/Existing: <u>New Revision</u> <u>to Existing Mine</u>
Contact Person: <u>Mr. Glen Eurick</u>	Mineral Ownership: <u>Fed/State/</u> <u>Barrick/Private</u>
Life of Mine: <u>@ 19 years</u>	Surface Ownership: <u>Fed/State/</u> <u>Barrick/Private</u>
	Lease No(s): <u>Not Listed</u>
	Permit Term: <u>@ 19 years</u> <u>(life of mine)</u>

Legal Description: (of revision) Portions of Sections 5, 6, 7 & 8, T6S, R3W,
and Section 32, T5S, R3W, SLBM.

Mineral(s) to be Mined: gold ore, silver and associated precious metals

Mining Methods: open pit strip mining (drill/blast, shovel & truck)

Acres to be Disturbed: 461 Acres (proposed), @ 97 Acres previously disturbed

Present Land Use: wildlife habitat, livestock grazing, recreation, mining

Postmining Land Use: same as above

Variances from Reclamation Standards (Rule M-10) Granted: M-10(3) Impoundments
M-10(5) Highwalls Pads, M-10(7) Roads and Pads *(See Attachmt. for details)

Soils and Geology:

Soil Description: 6 principal soils series: Acord Variant clay loam; Ant Flat
Variant loam; Bezzant Variant loamy clay; Manila Variant loamy clay; St.
Marys Variant soil; Toehead Variant soil; and Mined Land & the Slickens
mapping units

pH: varies from 6.9 - 8.2

Special Handling Problems: moderate erosion hazard; on relatively steep
topography a down slope recovery method of topsoil removal will be used.

Geology Description: Mercur district located east flank northwesterly trending
anticlinal structure, south end Oquirrh Mts. Marine carbonate sediments
are host to hydrothermal gold mineralization. Host rocks are Mississippian
age, thin bedded, silty, carbonaceous, bioclastic, wackestones and pack-
stones, silty carbonaceous mudstones and calcareous siltstones & finegrain
sandstones overlain by silty, carbonaceous shales. Great Blue Limestone,
Manning Shale, fanglomerate, terrace deposits, debris flow, colluvium and
alluvium (oldest to youngest units).

Hydrology:

Ground Water Description: No significant aquifers encountered during the extensive exploratory drilling, minor amts. perched water expected to seep into pits (shale aquicludes). Some limited entrapped surface waters may be intercepted if abandoned underground workings are intercepted. Attempts to develop groundwater source for operations have failed. Secondary permeability of limestones quite variable depending on local fracture frequency. Increased recharge to exposed rocks in pit bottom expected from runoff.

Surface Water Description: Headwaters of Mercur Canyon which is principally an ephemeral drainage. Precipitation values typically low and high evapotranspiration rates. Runoff from Mercur Canyon generally low due to high infiltration into alluvial slopes at canyon mouth. Limited H2O quality & flow data available. TDS averages 500 mg/l, TSS exceeds several thousand mg/l.

Water Monitoring Plan: A groundwater monitoring plan has been approved by the Division of Environmental Health to monitor potential impacts to the local groundwater regime from the cyanide heap leach pads. Current Monitoring of tailings pond H2O quality will also continue. Surface H2O drainage control structures: diversions, sediment ponds, berms, culverts, dams and impoundments will be used to minimize offsite impacts to hydrologic regime.

Ecology:

Vegetation Type(s); Dominant Species: 3 major vegetative communities: Pinyon-Juniper Woodland; Mixed Brush (gambel oak, Utah serviceberry, mtn. mahogany & big sagebrush); Bottomland-Disturbed (rabbitbrush, big sage, russian thistle, perrerrweed, nettles, forbs & grasses).

Percent Surrounding Vegetative Cover: P-J Woodland (20%), Mixed Brush (69%), Bottomland-Disturbed (77.5%) based on 1985 transects.

Wildlife Concerns: Barrick has removed trees along the highway ROW at critical to improve visibility and decrease instance of deer-vehical collisions. If this fails to reduce road kills on Highway 73, operator will consider installation of reflecting devices. Meadow Canyon Reservoir will serve as a freshwater source for wildlife and livestock.

Surface Facilities: Barrick will utilize existing mine & mill facilities to process new ore. New facilities include: 3 new strip pits, waste dumps, topsoil storage sites, haul/access roads, dump leach pads, sediment ponds, Meadow Canyon Reservoir, diversions, associated drainage control structures

Mining and Reclamation Plan Summary: see attached summary

Surety:

Amount: \$6,657,000 (1999 dollars)

Form: Corporate Self Bonding and Indemnity Agreement

Renewable Term: life of mine (@13 years)